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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,075	09/12/2003	Juergen Kienhoefer	JK-01-US	9791

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EXAMINER

CHEN, ALAN S

ART UNIT PAPER NUMBER

2182

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/662,075	Applicant(s) KIENHOEFER, JUERGEN	
	Examiner Alan S. Chen	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.  
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-23 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 14 August 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments and amendment filed 10/05/2006, with respect to the 35 U.S.C. §112 rejection have been fully considered and are persuasive. The 35 U.S.C. §112 rejection of claims 1,9,17 and 21 has been withdrawn.

2. Applicant's arguments with regard to the prior art rejection filed 10/05/2006 have been fully considered but they are not persuasive. Examiner's response is detailed below.

#### **Issue #1**

3. Applicant argues the signal format converter is not found in the reference to Benayoun.

Examiner does not agree. As pointed out in the first Office Action (page 4, lines 17+), the signal format convert circuitry is shown Fig. 4, element 50 and 52 and disclosed expressly in Column 4, lines 47-55 where "radio signals...have been converted from digital data by transmission (XMIT) block" and vice versa, where the received radio signals are converted to digital data by the REC block, elements 50 and 52. The wireless signals clearly have a different format that requires this conversion to the digital, non-wireless, format, translated by components inside the elements 50 and 52.

#### **Issue #2**

4. Applicant's remaining arguments pertain to how the instant application does not adopt use of hubs in any aspect of the invention and further details how hubs are more

complex than the invention of the instant application, requiring multiplexing and demultiplexing circuitry.

Examiner contends that ***nowhere in the specification or the claims*** precludes the use of hubs or even the fundamental hardware structures such as multiplexers and demultiplexers. The language used, particularly in the claims, describe “modules” and “devices” which in no way restrict the type of hardware implementation and their respective designs. Examiner recommends that if the Applicant intends to preclude use of hubs and their related hardware implementations, then add these negative limitations into the claims with the caveat that the limitations must be supported by the specification (see MPEP 2173.05(i)).

5. The prior art rejection is hereby maintained and reiterated below.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat. No. 6,725,302 to Benayoun et al. (*Benayoun*).

8. Per claims 1,9,17,20 and 21, Benayoun discloses a system and method (*Figs. 5 and 4*) for providing wireless communications between a first electronic device (*host*

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*computer 16) and a second electronic device (video camera 40), the first electronic device generating an output signal substantively in compliance with a first format (Column 5, lines 15+, host computer 16 controls video camera; Column 3, lines 50, all devices use USB format, thus host computer outputs to wireless hub 10 using USB standard), the output signal provided via an output signal channel of the first electronic device (host USB port outputs signal in USB format), and the second electronic device configured to enable a standard communications interface with an electronic device (video camera 40 attached via USB), the system/method comprising: a first module (Fig. 5, element 10, USB wireless hub) and a second module (Fig. 5, element 12, USB wireless hub), the first module configured for communicative coupling with the first electronic device and the second module configured for communicative coupling with the second electronic device (evident from Fig. 5, host attached to USB hub 10 and video camera attached to its own USB hub 12); the first module having a first connector and a transmitter (Fig. 4 shows modules, element 18 and 24 are USB port, inherently they are physically attached with connectors; Fig. 4, element 50 and 52 are wireless transceivers), the first connector configured to communicatively couple with the output signal channel of the first device (Fig. 5 shows host connected to the hub via the upstream/downstream ports shown in Fig. 4, element 18 and 24), and the first connector communicatively coupled with the transmitter (Fig. 4, what is sent in the upstream port is converted through functions block in the figure and ultimately sent over the transmitter, element 52), wherein the output signal is broadcast via the transmitter as a wireless communication (Fig. 4, element 31 is antenna that broadcasts data); the*

second module having a conforming connector (*Fig. 4 shows the hub, e.g., the module, which is attached to the video camera 40, port 24 attaches to the camera over USB*), a signal format converter circuit (*Column 4, lines 47-55, receiving blocks shown in Fig. 4, elements 50 and 52 converts radio signals into digital data signals*), and a wireless receiver (*Fig. 4, element 50*), wherein the conforming connector (*elements 18 and 24*) is configured to conform with the communications standard (*USB*) and is communicatively linked with the second electronics device (*Fig. 5, element 42 is attached to element 40*); the wireless receiver communicatively coupled with the converter circuit (*Fig. 4, element 50 is part of the converter circuit; Column 4, lines 50-55, and the wireless receiver for receiving the wireless transmission and providing the wireless transmission to the converter circuit*); and the converter circuit having a translation element, the translation element configured to accept the wireless transmission from the wireless receiver and to generate a substantively compliant signal by translating the wireless transmission from the first format into the substantively compliant signal in substantive compliance with the communications standard, and the converter circuit communicatively coupled with the conforming connector, wherein the substantively compliant signal is provided to the second electronic device (*Fig. 4 shows the adapter that converts wireless signals received via the antenna 32 to USB signals to be transmitted/received over port/connector elements 18 and 24*). Note that the adapter shown in Fig. 4 inherently has buffer memory due to the clearly different communication types/rates over a USB and a wireless protocol. These differences in communication types/rates are by definition, why buffers are used.

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9. Per claims 2-5,10-13,17 and 18, Benayoun discloses claims 1 and 9, further disclosing the first format being a serial digital format (*USB is a serial format*), a video format (*Fig. 5, element 40 is a video camera*) or audio format (*hub is adaptable to any USB adaptor device, e.g., microphone, or camera with microphone, etc*). Note, video format are predominantly mpeg/jpeg

10. Per claims 6 and 14, Benayoun discloses claims 1 and 9, wherein the transmitters are transceivers (*Fig. 4, elements 50 and 52*), whereby first and second modules enable bidirectional communications between the first and second electronic device (*Fig. 4, elements 18 and 24*).

11. Per claims 7,8,15,16 and 19 Benayoun discloses claims 6, 9 and 17, wherein the transceivers are wireless standards based (*Column 4, lines 15-20*). Benayoun specifically discloses an embodiment that says 2.4GHz which Bluetooth and WiFi (*802.11*) uses.

### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 22 and 23 are rejected under 35 USC 103(a) as being unpatentable over Benayoun.

15. Per claim 22, Benayoun discloses claim 21.

Benayoun does not disclose expressly the computer-readable medium being reprogrammable.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to have the controller/central chip of the USB wireless adapter (*Fig. 4*) be reprogrammable.

The suggestion/motivation for doing so would have been the majority of wireless adapter devices (*e.g., network interface hubs, routers, transceivers, etc.*) have reprogrammable chips since updates are inevitable based on revisions/glitches/bugs that need to be fixed. Since the instructions are stored on chip, this chip must be reprogrammable to handle these situations.

Therefore, it would have been obvious to utilize a reprogrammable chip in order to support future updates/revisions of the chip for any number of reasons.

16. Per claims 23, Benayoun discloses claims 22, wherein Benayoun further discloses the transmitter/receiver are transceivers (*Fig. 4, elements 50 and 52*), whereby first and second modules enable bidirectional communications between the first and second electronic device (*Fig. 4, elements 18 and 24*).



**Conclusion**

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S. Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ASC  
10/05/2006



**KIM HUYNH**  
**SUPERVISORY PATENT EXAMINER**

10/6/06